

25373

4

S/089/61/011/001/002/010  
B102/B214

Experience from work with ...

starting was perfected which requires only such equipment as is used in normal operation. During the period of transformation of the superheating operation, the superheating channel could either be closed, or it could work without cooling ("dry operation"), or with water cooling. The last named method had a number of advantages. The following starting methods were studied: Starting with continuous increase of the reactor power, starting with decrease of the reactor power, and combined methods (first the former, and then the latter but lowering the power only for about 60 - 70%). To increase the safety of the reactor, a special system was built in 1959 which prevents the escape of the gas - steam mixture into the ventilation system when the tubes of the experimental holes break down. This system "for localizing the damage due to accident" (Fig. 2) not only serves this purpose but also helps to purify the gas after the accident has occurred. The system consists of a cylindrical tank ( $6.2 \text{ m}^3$ ) whose lower part ( $1.8 \text{ m}^3$ ) is filled with water; in it are placed the cooling coils and special nozzles through which the steam - gas mixture streams into the water in the case of an accident. The gas is introduced in a sensitive gas container. The whole system is placed in a protective container equipped with manometers, thermometers, and dosimeters. There

Card 4/9

Experience from work with ...

2 figures and 2 tables.

SUBMITTED: February 6, 1961

25373

S/089/61/011/001/002/010  
B102/B214

Card-S/g

ACCESSION NR: AP4037630

S/0096/64/000/006/0005/0007

AUTHOR: Ushakov, G. N. (Candidate of Technical Sciences); Kochetkov, L. A. (Engineer); Konochkin, V. G. (Engineer); Sever'yanov, V. S. (Engineer)

TITLE: Operating experience of the first atomic power plant

SOURCE: Teploenergetika, no. 6, 1964, 5-7

TOPIC TAGS: atomic reactor, atomic power plant, reactor operation, direct flow reactor

ABSTRACT: The authors present data demonstrating the high reliability of plant equipment after ten years of operation. Seventy per cent of fuel elements operated 1.5 to 3.5 times longer than design expectations, while channels and reactor operated normally even with channel flows between 100-1000 g/hr. Compensation capacity of the uncooled, heat-resistant boron-steel rods was 80% that of the previously used boron carbide rods; increasing the boron content beyond 2.5--3.0% did not increase compensation. Life of the fully inserted rods was 54 days at a reactor power of 15 Mw. Filling the graphite pile with nitrogen enabled it to operate at 700-800C. In the beginning of 1960 all channels began operation under

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ACCESSION NR: AP4037630

boiling conditions, and the entire reactor was converted to qualitatively new operating conditions. Prolonged experiment with superheated steam proved the feasibility of starting a direct-flow reactor by gradual displacement of water with steam, and the reliability of cooling it during emergency shutdown. Orig. art. has: 4 tables.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 22Jun64

ENCL: 00

SUB CODE: NP

NO REF SOW: 000

OTHER: 000

Card 2/2

ACCESSION NR: AP4041445

S/0089/64/016/006/0484/0488

AUTHORS: Ushakov, G. N.; Kochetkov, L. A.; Konochkin, V. G.;  
Sever'yanov, V. S.; Kozlov, V. Ya.; Sudnitsy\*n, O. A.

TITLE: Operating experience of the first atomic electric station  
in the world

SOURCE: Atomnaya energiya, v. 16, no. 6, 1964, 484-488

TOPIC TAGS: reactor control rod, reactor feasibility study,  
reactor hazard, reactor operation, boiling water reactor

ABSTRACT: Several preliminary tests aimed at ascertaining the  
feasibility of an atomic power station with the steam heated directly  
in the reactor are described. These included tests to determine  
the degree of throttling of thin parallel boiler tubes directly  
cooling the fuel elements at loads up to  $10^6$  kcal/m<sup>2</sup> hr with up to  
30% steam by weight; tests to prevent pulsations of flow in the

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ACCESSION NR: AP4041445

parallel boiler tubes; experiments on nuclear superheating of the steam in an experimental single-circulation loop. The description covers experiments on the boiling and steam superheat modes in the reactor, tests on the operation of the uncooled control rods, and reactor safety tests. The original control rods made of boron carbide clad with stainless steel and cooled with water. Various shortcomings of these rods have necessitated the development of control rods made of tubular steel carrying equally spaced sleeves of boride steel (18 sleeves in a control rod 1500 mm long). Rods of this type had sufficient absorbing ability and service life to operate at 850C and an integral neutron flux  $5 \times 10^{20}$  neut/cm<sup>2</sup>. The use of these control rods increased the reactivity margin by 0.8%, the operating period by 15 days, and the reactor efficiency by 1%. Other advantages and disadvantages of uncooled boron carbide scram rods are briefly discussed. The safety problems considered involve hermeticity of the fuel element cladding and of the fuel element internal tube which is under pressure. The effects of each

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ACCESSION NR: AP4041445

type of failure are discussed. In the former type the contamination of the first loop by radioactive corrosion products is relatively low even after 10 years of operation. A special system, which prevents the steam-gas mixture from entering the ventilation system in the case of emergency of the latter type, is described. It is claimed that all the safety precautions cause the personnel exposure to radiation to be below the established norm. Orig. art. has: 1 figure.

ASSOCIATION: None

SUBMITTED: 11Apr64

ENCL: 01

SUB CODE: NP, IE

NR REF SOV: 000

OTHER: 000

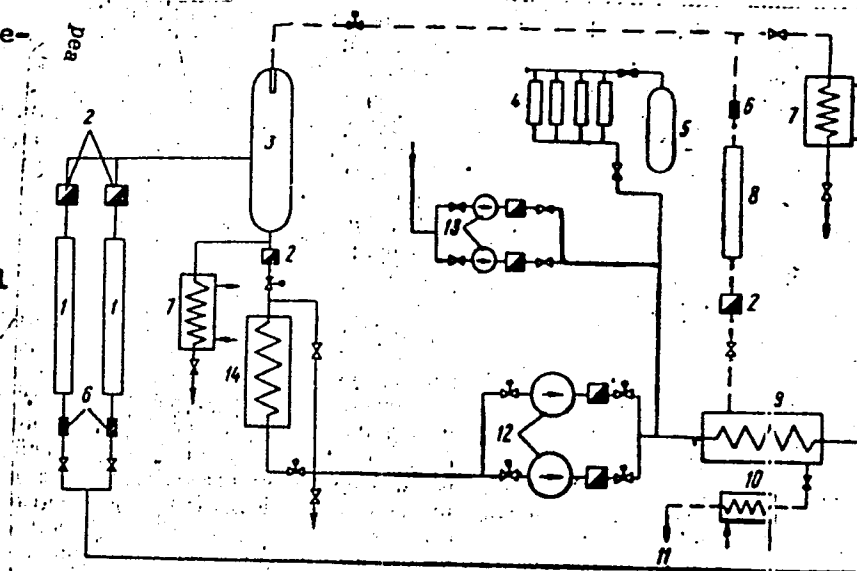
Card 3/4

ACCESSION NR: AP4041445

ENCLOSURE: 01

Principal diagram of single-circulation superheat loop

- 1 - evaporation channels
- 2 - shutoff, 3 - separator
- 4 - water volume compensators, 5 - air volume compensators, 6 - check valves, 7 - sample cooler
- 8 - steam superheat channel
- 9 - regenerative preheater
- 10 - condensate cooler
- 11 - condensate overflow
- 12 - circulating pumps
- 13 - feedwater pumps
- 14 - heat exchanger



Card 4/4



USHAKOV, G.N., kand. tekhn. nauk; KOCHETKOV, L.A., inzh.; KONOCHKIN, V.G., inzh.;  
SEVER'YANOV, V.S., inzh.

Experience in the operation of the first atomic power plant. Teplo-  
energetika 11 no.6:5-7 Je '64. (MIRA 18:7)

L 16282-65 EWT(m)/EPF(n)-2/T/EPA(bb)-2 Pu-4 SSD/AFWL DM  
 ACCESSION NR: AP4049536 S/0089/64/017/005/0359/0366

AUTHORS: Ushakov, G. N.; Kochetkov, L. A.; Konochkin, V. G.; Z  
Sever'yanov, V. S.; Kozlov, V. Ya.; Sudnitay\*n, O. A.; Belinskaya,  
N. T.; Slyusarev, P. N.; Ivanov, V. A.

SOURCE: Atomnaya energiya, v. 17, no. 5, 1964, 359-366

TITLE: Operating experience with the first atomic electric station  
 as an experimental installation 19

TOPIC TAGS: research reactor, reactor theory, reactor operation

ABSTRACT: Different experimental loops added to the first atomic energy station for research purposes are described. These include the following: 1) double-passage steam superheating loop; 2) water loop with natural circulation; 3) water loop for water-chemistry research; 4) high pressure water loop; 5) loops for organic-liquid research (with high and low melting temperatures). Each of the loops is briefly described. Other phases of the research are tests of the behavior of the graphite core at high temperatures, operating

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L 16282-65

ACCESSION NR: AP4049536

tests on various channels and fuel elements of tubular construction, investigations of the radioanalysis of water and superheated steam, investigation of deposition of radioactive impurities from the superheated steam on the turbine blades. Some of the brief reports are accompanied by tables showing the variation of the operating conditions of various sections of the reactor with time. Orig. art. has: 3 tables and 2 figures.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: NP

NR REF SOV: 000

OTHER: 000

Card 2/2

SEVER'YANOVA, A.

New wage schedule in branches of the textile industry. Sots.trud  
4 no.12:46-53 D '59. (MIRA 13:6)  
(Textile industry) (Wages)

L 8375-65 EWT(m) DIAAP/AFWL/ESD(dp)/RAEM(t)

ACCESSION NR: AR4044030

SOURCE: Ref. zh. Fizika, Abs. 11B199

AUTHOR: Isayev, P.; Severy'n'skiy, M.

TITLE: The production of KK-Pairs in  $\pi\pi$ -collisions

CITED SOURCE: Tr. 7 mezhdunar. konferentsii po voprosam fiz. vy'sokikh energii, Sofiya, 1961. Sofiya, 1962, 91-94

TOPIC TAGS:  $\pi\pi$  scattering, KK pair, integral equation, partial amplitude,  $\pi\pi$  collision

TRANSLATION: Using double dispersion relations there are obtained integral equations for partial amplitudes of the process  $\pi+\pi \rightarrow K+K$ . Only S- and P-waves are examined. Under conditions of unitarity there are considered only 2-particle intermediate states. The obtained equations contain the dependence on the phases of  $\pi\pi$ -scattering and on the partial amplitudes of  $\pi K$ -scattering. The requirement of the existence and uniqueness of the solutions of the equations leads to a number of restrictions

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L 8375-65

ACCESSION NR: AR4044030

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on the phases of  $\pi\pi$ -scattering and on the partial amplitudes of  $\pi\pi$ -scattering. In particular, the phases of  $\pi\pi$ -scattering at sufficiently high energy should equal  $\pi$  and the P-phase has at least one minimum. The presence of resonance in the  $\pi\pi$ -system does not contradict the conditions that the equations be solvable. The solution should contain one indefinite constant.

SUB CODE: NP, MA

ENCL: 00

Card

2/2

SEVERYUKHIN, D.D.

Eliminating intershop storage rooms in industry. Leg. prom. 18  
no.6:47 Je '58. (MIRA 12:10)  
(Shoe industry) (Industrial management)

SEVERYUKHEN, I.

Decorated fireman. Pozh.delo 6 no.12:15-16 D '60. (MIRA 13:12)  
(Firemen)



RYZHIKOV, A.A., doktor tekhn. nauk; SEVERYUKHIN, N.V., inzh.;

TIMOFFEYEV, G.I., kand. tekhn. nauk; ROSHCHIN, M.I., inzh.

Low-pressure casting of intricately shaped silicon brass  
castings. Lit. proizv. no.12:35 D '65. (MIRA 18:12)

ANDO, Jeno; MATEFFY, Sandor; VEN, Mihaly; SEVESTYEN, Endre; FELKAI, Aurel;  
GERVAI, Zoltan; MAYER, Laszlo; GREGOR, Alder; RASCHOVSKY, Lajos

Remarks on the article "The most important problems of technical  
development of electric installations in industrial plants and  
tasks for the manufacturing industry related to this. Villamosag  
9 no.1/3:42-46 Ja-Mr '61.

1. A Villamos Eloszerelo Vallalat fomerloke (for Ando). 2. A Koho-es  
Gepipari Miniszterium Tervezo Irodai villamos tervezesi osztalysnak  
vezetoja (for Mateffy). 3. A Villamos Allomasszerlo Vallalat former-  
loke (for Ven and Felkai). 4. Vegimuveket Tervezo Vallalat (for  
Sevestyen). 5. Konnyuipari Tervezo Iroda (for Gervai). 6. E.M.  
Tipustervezo Intezet (for Gregor). 7. E.M. Ipari es Mezogazdasagi  
Tervezo Vallalat (for Raschovsky).

ANDO, Jenő; MATEFFY, Sándor; VEN, Mihály; SEVESTYÉN, Endre;  
FELKAI, Aurel; GERVAI, Zoltán; MAYER, László; GREGOR, Aladar;  
RASCHOVSZKY, Lajos; SZELES, Lajos; BEKE, Gyula

Remarks on the article "The most important problems of technical development of electric installations in industrial plants and tasks for the manufacturing industry related to this. Villamosság 9 no.1/3:42-46 Ja-Mr '61.

1. A Villamos Eloszerelo Vallalat formerteke (for Ando).
2. A Koho-es Gepipari Miniszterium Tervezo Irodai villamos tervezesi osztalyanak vezetoje (for Mateffy). 3. A Villamos Allomasszerelo Vallalat formerteke (for Ven and Felkai).
4. Vegyimuveket Tervezo Vallalat (for Sebestyen). 5. Konnyuipari Tervezo Iroda (for Gervai). 6. E.M. Tipustervezo Intezet (for Gregor). 7. E.M. Ipari es Mezogazdasagi Tervezo Vallalat (for Raschovszky). 8. Orszagos Villamosenergia Felugyelet (for Seles). 9. Orszagos Villamosenergia Felugyelet (for Beke).

SEVETS, M.Ye.; SHNEYEROV, B.Ye.; KOLESKOVA, I.F.

Use of radiation measurements from satellites in a model of  
large-scale atmospheric movements. Trudy GGO no.166:173-181  
'64. (MIRA 17:11)

SEVGIC, B.

Results achieved in recent piping of water from marine sources by a device to demineralize salt water. p. 506.

TEHNIKA, Beograd, Vol. 10, no. 4, 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955, Uncl.

SEVIC, Miroslav, asistent (Beograd, 14. decembra 57)

A numerical criterion in the dimensioning of the axle with circular cross section subjected to torsion. Tehnika Jug 17 no.7:Suppl.: Masinstvo 11 no.7:1309-1311 J1 '62.

1. Prirodno-matematički fakultet Univerziteta u Beogradu.

SEVIC, I.

Preparation for health education of serbian village girls. p. 2. (BEOGRAD, Vol 7, no 5, 1952 )

SC: Monthly Li t of East European Acquisitions. (IEAL, IC, Vol. 4, No. 6, June 1955, Uncl.

SEVICK, V.

"Formation of Large Strains of *Bacillus subtilis* in Flowing Media." p. 111 (CHEKHOSLOVATSKAI  
BIOLOGIIA, Vol. 1, No. 1, May 1952) Praha, Czechoslovakia

SO: Monthly List of East European Accessions, Library of Congress, Vol. 3, No. 4,  
April 1954. Unclassified.



1ST AND 2ND COLUMNS																										3RD AND 4TH COLUMNS																									
PROCESSES AND PROPERTIES INDEX																										MATERIALS INDEX																									
<p>ON THE QUESTION OF THE MECHANISM OF ELECTRODEPOSITION OF METALS FROM COMPLEX SALTS. A. SEVIN (ZHUR. FIZ. KHIM., 1944, 18, (1/2), 53-60) (In Russian) By using a specially designed and continuously supplied electrolytic apparatus at very weak concentrations (approx. <math>10^{-6}</math> g.-atom per litre) it was shown that dense, fine-grain deposits could be obtained in the deposition of copper and silver from simple salt electrolytes. It is suggested that the fine-grain deposits obtained from complex salts when using higher concentrations are due to small concentrations of free ions. V.K.</p>																																																			
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																																																			

SEVIN, I.

Europe, Eastern - Economic Conditions

Road to the future. Nauka i zhizn' 20, No. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

ZABRODINA, A.S.; SEVINA, S.Ya.

Microdetermination of carbon and hydrogen in silane organic compounds.  
Vest. Mosk. un. Ser. mat., mekh., astron., fiz. khim., 12 no.5:181-186  
'57. (MIRA 11:9)

1. Kafedra organicheskoy khimii Moskovskogo gosudarstvennogo universiteta.  
(Carbon) (Hydrogen) (Silane)

SEVINSKIY, K.A.

Distribution of concentrations of gas in a stream-jet vacuum pump.  
Zhur.tekh.fiz. 24 no.5:875-878 My '54. (MIRA 7:?)  
(Vacuum pumps)

L 4960-66 EWT(m)/EPF(c)/EWP(j)/EWP(t)/EWP(b) IJP(c) JD/RM

ACC NR: AP5025677

SOURCE CODE: UR/0284/65/000/018/0025/0025

AUTHORS: Bliznyuk, M. K.; Kvasha, Z. N.; Solntseva, L. M.; Litman, B. Ya.; Beym, A. I.; Sevitov, I. B.

ORG: none

TITLE: A method for obtaining dialkylphosphites. Class 12, No. 174624  
/announced by Organization of the State Committee for Chemical Industry at Gosplan  
SSSR (Organizatsiya gosudarstvennogo komiteta po khimicheskoy promyshlennosti pri  
gosplane SSSR)/

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 25

TOPIC TAGS: phosphorus compound, alcohol, dialkylphosphite

ABSTRACT: This Author Certificate presents a method for obtaining dialkylphosphites by reacting phosphorus trichloride with alcohols or alcoholic solution, with subsequent drying of products by a current of dry air. To increase the yield of final product and to simplify the process, trialkylphosphites are added to the reaction mixture in quantities equivalent to the overall content of acidic products.

SUB CODE: OC/ SUBM DATE: 17Oct64

Card 1/1 /nd

UDC: 547.419.1.07

0901 1570

SEVIYEV, S.A.

AUTHOR: Seviyev, S.A., Engineer

67-58-2-15/26

TITLE: The Automatic Control of the Process of Oxygen Production  
(Avtomaticheskoye regulirovaniye protsessa polucheniya kisloroda)

PERIODICAL: Kislород, 1958, Nr 2, pp. 64-71 (USSR)

ABSTRACT: The author bases his paper on technical data obtained from foreign publications. As a model of the automatized oxygen apparatus he mentions one produced by the firm of "Stesi-Dresser" (USA) and sets up a workable program for the automatization of the following functions: 1.) The quantity of air with which the apparatus is supplied. 2.) The ratio between the air supply and the recuperators of nitrogen- and hydrogen regenerators. 3.) Temperature at the cold end of oxygen regenerator recuperators. 4.) The same of nitrogen regenerator recuperators. 5.) The regulation of air quantity before the "turbodetander" (engines driven by compressed gas). 6.) Regulation of air temperature before the "turbodetander". 7.) Working regime of the high pressure column. 8.) Regulation of the pressure of liquid nitrogen at the input of the low pressure column. 9.) Regulation of the degree of purity of the oxygen produced. The author gives the basic scheme of such an apparatus and

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The Automatic Control of the Process of Oxygen Production

67-58-2-15/26

describes its automatization in accordance with the above points. In the section: Additional Points of Control the author deals with the automatization of the following functions: a) control of air temperature before the input to the regenerator recuperators. b) Extraction of gaseous oxygen from the column for low pressures. c) Control of the supply of liquid oxygen to the distillation column. d) Determination of the acetylene content on liquid oxygen; regulation of temperature in the high pressure column when heated up to the permitted maximum temperature (90°C). Finally, the author mentions the possibility of using the nitrogen blower for the drier as an automatic protection of parts of the apparatus against the action of gases and moisture. There is 1 figure.

AVAILABLE: Library of Congress

1. Oxygen production--Processes      2. Oxygen production--Control systems

Card 2/2

*SEVKO, A.*

SEVKO, A., kand.tekhn.nauk, inzh.-polkovnik; SAVEL'YEV, V., kand.tekhn.nauk

Determining depths for driving of military bridge piles. Voen.-  
inzh.zhur.94 no.7:29-36 J1 '50. (MIRA 10:12)  
(Piling (Civil engineering)) (Military bridges)



SEVKOVIC, N.

"Ass., Vet. Fac. Beograd, Cocblebur (Xanthium Saccharatum) Poisoning in Pigs."

Vet. 1 : 34-38, 1954

SEVKOVIC, N.

YUGOSLAVIA/Farm Animals. Swine.

Q-2

Abs Jour: Ref Zhur - Biol., No. 22, 1958, 101208

Author : Sevkovic, N., Stojanovic, N., Stojanovic, M.S.

Inst : -

Title : The Effect of Adding Vitamins to Various Kinds of Fodder Upon Growth Acceleration of Weaned Piglets.

Orig Pub: Veterin. glasnik, 1957, 11, No. 11, 1066-1070

Abstract: As vitamins in the form of the "Dokhifral A + D<sub>3</sub> + B" preparation were given to weaned piglets, which were fed vegetative fodder, their appetites improved and they absorbed their feeds better. Thus, in turn, growth acceleration resulted. As vitamins were added to feed rations which contained products of animal origin, however, the growth of the piglets did not become accelerated.

Card 1/1

51

YUGOSLAVIA

Sl. MURGANSKI, I. PUHAC and N. SEVKOVIC [Affiliation not given.]

"Use of the Annular Box A-1900 for Parturient Sows in Large Swine Farms."

Belgrade, Veterinarski Glasnik, Vol 17, No 5, 1963; pp 419-425.

Abstract : Summary of anatomical, physiological and technical considerations leading to design and construction of a tubular frame metallic round enclosure for sows, so built that the chance of suffocation of newborn piglets is minimized. The enclosure is placed into the usual square wooden pen. In use, only 2 piglets out of 88 in 8 litters were suffocated. Comprehensive technical details. Photograph, 2 tables.

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YUGOSLAVIA

PUHAC, I.; MURGASKI, S.; SURDUCKI, I.; and SEVKOVIC, N., Institute for Preventive Veterinary Medicine (Institut za preventivnu veterinarsku medicinu), Belgrade

"Effect of Environment and Density of Population in Pig Pens with Slotted Floors on Results of Fattening Swine and on the Quality of Meat"

Belgrade, Veterinarski Glasnik, Vol 20, No 10, 1966, p. 733-742

Abstract [English summary modified]: Study of suitability of slotted or latticed floors in hog pens to replace the usual cold floors, revealed that slotted floors consistently gave superior results in terms of final body weight as well as feed efficiency, regardless of the number of head kept in the standard size box. 7 tables, 2 United States references. Manuscript received 28 Apr 66.

FUKARAK, P.; SAFAR, J.; MESTROVIC, S.; KLEPAC, D.; LNEENICEK, Z.; ZMIJANAC, D.;  
SEVNIK, F.; ZAGAR, B.; MIKLAVZIC, J.; KNEZ, A.; PIPAN, R.; FUNKL, L.;  
SVETLICIC, A.; ZUMER, L.; KREVO, R.

Reveiw of periodicals; silviculture. Bul se Young 9 no.4/5:144-  
145 Ag-0 '64.

SEVORTYAN, A.

[Plant more corn in our country] "Kukuruzu - na polia strany";  
nauchno-populiarnyi fil'm. [Moskva, Mos. kinostudiia nauchno-  
populiarnykh fil'mov, 1955] 22 p. (MIRA 11:3)  
(Corn (Maize))

SEVOST'YANIKHINA, R.I.

Intravarietal crossing of forage beans. Agrobiologiya  
no.3:463-464 My-Je '65. (MIRA 18:11)

1. Leningradskiy sel'skokhozyaystvennyy institut, g.  
Pushkin.

25676 SEVOST'YANOV, A. G.

Rassortirovka volokon na grebnochesal'nykh mashinakh.  
Tekstil. Prom—st', 1948, No. 6, s. 18-22.

SO: Ietopis' Zhurnal'nykh Statey, No. 30, Moskva, 1948



SEVOST'YANOV, A. G.

Sevost'yanov, A. G. - "Problems of the theory of the composition of mixtures in cotton", Nauch.-issled. trudy (Mosk. tekstil. in-t), Vol. XI, 1948, p. 55-75.

SO: U-3042, 11 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 6, 1949).

SEVOST'IANOV, A. G.

Author: Sevost'ianov, A. G.

Title: The construction, assembly, repair and adjustment of the band and uniform machines. (Ustroistvo, montazh, remont i nala ka lentochnykh i rovalchykh mashin]. 235 p.

City: Moscow  
Publisher:

~~PUBLICATION~~: State Printing House of Technical Literature

Date: 1950

Available: Library of Congress

Source: Monthly List of Russian Accessions, v. 3, no. 12, page 842

TRUYEVTSSEV, N.I.; SEVOST'YANOV, A.G., retsenzents; SOKOLOVA, V.Ye., redaktor;  
EL'KINA, E.M., tekhnicheskii redaktor

[Spinning; a comparative course] Priadenie; sravnitel'nyi kurs.  
Moskva, Gos.nauchno-tekhn. izd-vo legkoi promyshl., 1952. 277 p.  
(Spinning)

SEVOST'YANOV, Aleksey Grigor'yevich; KOPELEVICH, Ye.I., redaktor; EL'KINA,  
E.M., tekhnicheskii redaktor.

[Blending and the composition of blendings in cotton spinning; theory  
and practice] Sostavlenie smesok i smeshivanie v khlopkopriadil'nom  
proizvodstve; teoriia i praktika. Moskva, Gos. nauchno-tekhn. izd-vo  
Ministerstva promyshlennykh tovarov shirokogo potrebleniia SSSR, 1954.  
191 p. (MLRA 8:1)

(Cotton spinning)

SEVOST'YANOV, A.G., kandidat tekhnicheskikh nauk; KUCHEROV, B.K.,  
kandidat tekhnicheskikh nauk.

Determining the forces acting on fibers during drawing. Tekst.prom.  
14 no.9:16-19 S '54. (MLBA 7:11)  
(Spinning)

VINOGRADOV, Yuriy Sergeyevich; BOYEV, G.P., professor, retsenzent; SOLOV'YEV, A.N., professor, retsenzent; SEVOST'YANOV, A.G., kandidat tekhnicheskikh nauk, retsenzent; ARKHANGEL'SKIY, S.S., redaktor; MEDVEDEV, L.Ya., tekhnicheskij redaktor

[Mathematical statistics and their application to studies in textile production] Matematicheskaya statistika i ee primeneniye k issledovaniyam v tekstil'nom proizvodstve. Moskva, Gos. nauchno-tekhn. izd-vo Ministerstva legkoi promyshl. SSSR, 1956. 260 p. (MIRA 10:1)  
(Mathematical statistics)

~~SECRET~~ ~~YANOV~~ ~~A.G.~~  
SOKOLOV, Gennadiy Vasil'yevich; ~~SEVOST'YANOV, A.G.~~, nauchnyy redaktor;  
SOKOLOVA, V.Ye., redaktor; ~~MEDVEDEVA, L.A.~~, tekhnicheskii redaktor

[The theory of twisting of fibers] Voprosy teorii krucheniia volokni-  
stykh materislov. Moskva, Gos,nauchno-tekhn,izd-vo M-va legkoi  
poromyshl. SSSR, 1957. 233 p. (MLHA 10:10)  
(Textile fibers) (Spinning)

21(8); 25(1)

PHASE I BOOK EXPLOITATION

SOV/2826

Sevost'yanov, Aleksey Grigor'yevich

Primeneniye radioaktivnykh izlucheniya dlya kontrolya, regulirovaniya i issledovaniy v pryadil'nom proizvodstve (Use of Radioactive Rays for Control, Regulation, and Research in the Spinning Industry)  
Moscow, Gizlegprom, 1958. 57 p. 2,500 copies printed.

Ed. (Title page): M.B. Neyman, Professor; Ed. (Inside book): D.I. Tumarkin;  
Tech. Ed.: M.T. Knaknin.

PURPOSE: This book is intended for industrial engineers and technologists in the spinning industry.

COVERAGE: The book generalizes and systematically sets forth data on methods which employ radiation from radioactive sources to control, regulate and investigate spinning processes, and offers some possibilities for their wider use. The author thanks Professor M. B. Neyman and Candidate of Technical Sciences K.D. Pismannik. There are 40 references: 28 Soviet and 12 English.

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(Use of Radioactive Rays (Cont.)

SOV/2826

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(Use of Radioactive Rays (Cont.)

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AVAILABLE: Library of Congress (TS1449.S48)

Card 3/3

TM/gap  
1-21-60

SEVOST'YANOV, A.G., kand.tekhn.nauk

Introduce automatic assembly lines; automatic regulators for drawing.  
Tekst.prom. 18 no.5:20-24 My '58. (MIRA 11:5)  
(Spinning machinery) (Automatic control)

SEVOST'YANOV, A.G.

Equating the curve of thinning in stationary conditions of the  
drawing process. Izv.vys.ucheb.zav.; tekhn.tekst.prom. no.1:  
79-89 '59. (MIRA 12:6)

1. Moskovskiy tekstil'nyy institut.  
(Yarn)' (Spinning)

SEVOST'YANOV, A.G.

Equations of the thinness curve in the fixed speed drafting  
process. Izv.vys.ucheb.zav.; tekhn.tekst.prom.no.2:52-65 '59.  
(MIRA 12:6)

1. Moskovskiy tekstil'nyy institut.  
(Spinning)

SEVOST'YANOV, A.G.

Equations of the thinning curve obtained in drafting yarn with  
a nonuniform structure. Izv.vys.ucheb.zav.; tekhn.tekst.prom.  
no.4:63-70 '59. (MIRA 12:11)

1. Moskovskiy tekstil'nyy institut.  
(Spinning)

SEVOST'YANOV, A.G.

Equations of the thinning curve obtained in drafting yarn of  
irregular structure. Izv.vys.ucheb.zav.; tekhn.tekst.prom. no.6:  
54-62 '59. (MIRA 13:4)

1. Moskovskiy tekstil'nyy institut.  
(Spinning)

SEVOSTYANOV, A. G., Dr. Tech Sci — (diss) "Investigation of irregularities occurring during textile fiber merging and upon drawing off the products for spinning," Moscow, 1960, 24 pp, 150 cop. (Moscow Textile Institute) (KL, 45-60, 124)



SEVOST'YANOV, A.G., kand.tekhn.nauk

Theoretical principles of the operation of modern automatic  
draft regulators. Tekst.prom. 20 no.2:23-28 F '60.

(MIRA 13:6)

(Spinning machinery)

SEVOST'YANOV, Aleksey Grigor'yevich; GINZBURG, L.N., retsenzent;  
LEVINSKIY, V.P., retsenzent; AKSENOVA, I.I., red.; KNAKNIN,  
M.T., tekhn. red.

[Methods for analyzing the irregularities of spinning products;  
characteristics of random functions and their application] Me-  
tody issledovaniia nerovnoty produktov priadeniia; kharakte-  
ristiki sluchainykh funktsii i ikh primeneniia. Moskva, Rostekh-  
izdat, 1962. 385 p. (MIRA 15:7)

(Spinning)

GUSEV, Vladimir Yegorovich; Balyasnikov, P.S., retsenzent; Kononenko, T.V., retsenzent; Sevost'yanov, A.G., retsenzent; Verbitskaya, Ye.M., red.; Trishina, L.A., tekhn. red.

[Efficient methods of processing wool and synthetic fibers]  
Ratsional'nye metody pererabotki shersti i khimicheskikh volokon. Moskva, Rostekhzdat, 1962. 357 p. (MIRA 16:2)  
(Wool and worsted manufacture)  
(Textile fibers, Synthetic)

SEVOST'YANOV, A.G., prof., doktor tekhn.nauk

Factors determining the strength of attraction of the magnetic  
rollers of drafters. Tekst.prom. 22 no.12:8-13 D '62.  
(MIRA 16:1)

1. Moskovskiy tekstil'nyy institut.  
(Spinning machinery—Testing) (Magnetic fields)

SEVOST'YANOV, Aleksey Grigor'evich; GROMOVA, T.G., red.; PYATNITSKIY,  
V.N., techn. red.

[Magnetic rollers and forces acting in exhaust devices]  
Magnitnye valiki i sily, deistvuiushchie v vytiazhnykh  
priborakh. Moskva, Gizlegprom, 1963. 98 p. (MIRA 16:9)  
(Exhaust systems) (Magnets)

RAISON, N.I., aspirantka, SVOZIMKOV, S.S., doktor tekhn. nauk,  
prof., rukovoditel' raboty

Investigating fiber migration in blended yarns. Tekst.  
prom. 24 no.11:16-19 N '64. (MIRA 17:12)

1. Moskovskiy tekstil'nyy institut.

SEVOST'YANOV, Aleksey Grigor'yevich; YEFIMOV, Aleksey Vasil'yevich;  
GONCHAROV, A.V., retsenzents; DUKHOVNIY, F.N., red.

[Design, assembly, repair and adjustment of drawing and roving machines] Ustroistvo, montazh, remont i naladka lentochnykh i rovnichnykh mashin. Moskva, Izd-vo "Legkaya industriya,"  
1964. 317 p. (MIRA 17:5)

VINOGRADOV, Yuriy Sergeyevich; SEVOST'YANOV, A.G., prof., retsenzent;  
NESHCHAYEVA, N.M., red,

[Mathematical statistics and its application in the textile  
industry to research] Matematicheskaya statistika i ee pri-  
menenie k issledovaniyam v tekstil'noi promyshlennosti.  
2. izd., perer. i dop. Moskva, Legkaya industriya, 1964.  
319 p. (MIRA 17:10)



STEPANOVA, A.S., starshiy nauchnyy sotrudnik; SEVOST'YANOV, A.G., doktor tekhn.  
nauk, rukovoditel' raboty

Studying the coefficient of tangential resistance between the  
fiber and materials used for packing. Tekst.prom. 25 no.1:7/-  
76 Ja '65. (MIRA 18:4)

1. Tsentral'nyy nauchno-issledovatel'skiy institut vspomogatel'-  
nykh izdeliy i zapasnykh detaley k tekstil'nomu oborudovaniyu  
(for Stepanova).

SEVOST'YANOV, A.G., prof., doktor tekhn. nauk; ZAVILEVICH, M.L., prepodavatel'

Process of fiber flow arrangement and straightening on roller carding  
machines. Tekst. prom. 25 no.8:14-20 Ag '65. (MIRA 18:9)

1. Moskovskiy tekstil'nyy institut.

ACC NR: AP6031038

SOURCE CODE: UR/0394/66/004/009/0058/0059

AUTHOR: Nikol'skiy, S. N.; Sevost'yanov, A. Z.

ORG: Stavropol Agricultural Institute (Stavropol'skiy sel'skokhozyaystvennyy institut)

TITLE: Use of certain chemical compounds in the control of ticks in pastures

SOURCE: Khimiya v sel'skom khozyaystve, v. 4, no. 9, 1966, 58-59

TOPIC TAGS: chemical compound, insecticide, pesticide, animal parasite, pest control/ Fenkapton pesticide, Saifos pesticide, Eradex pesticide, Keltan pesticide, Sevin pesticide

ABSTRACT: The chemicals shown in the table were tested for their acaricidal activity. As shown by the table, the compounds tested were excellent contact poisons for larvae at nearly all concentrations tested. All experiments were performed under laboratory conditions.

Card 1/3

UDC: 632.654.636.22/.28

ACC NR: AP6031058

Table 1. Acaricidal action of pesticides on larvae of *D. marginatus* and nymphs of *H. plumbeum* when given in food.

Compound	Concentration — % —	Kill larvae %	Kill nymphs %
Fenkapton [0,0-diethyl-S(2,5-dichlorophenylthio methyl)dithiophosphate]	0.5	100	3.3
	0.05	100	0
	0.005	52	—
Saifos [0,0-dimethyl S(4,6-diamine-1,3,5-triazine-2-yl)methyl-dithiophosphate]	0.5	87.5	0
	0.05	50	0
	0.005	20	—
Eradex (quinoline-2,2,3-trithiocarbonate)	0.5	100	13.3
	0.05	100	0
	0.005	36	—
Keltan [1,1,1-trichloro-2,2-bis(4-chlorophenyl)ethanol]	0.5	100	0
	0.05	58	0
	0.005	0	—
Preparation 952	0.5	100	100
	0.05	100	63.2
	0.005	100	3.3
	0.5	100	100
Sevin (1-naphthyl-N-methylcarbamate)	0.025	100	100
Gamma isomer of hexachlorocyclohexane	—	20.8	0
Control (water)	—	—	—

Card 2/3

NIKOL'SKIY, S.N., prof.; SEVOST'YANOV, A.Z., assistant; DUBOVYY, S.Z., vand.  
veterin.nauk; PASECHNYI, N.V., veterinarnyy vrach; ZABLUDSKIY, B.M.,  
veterinarnyy vrach

Use of hexachloran against Psoroptes infestation of sheep.  
Veterinariia 41 no.8:87-90 Ag '64. (MIRA 18.4)

1. Stavropol'skiy sel'skokhozyaystvennyy institut (for Nikol'skiy,  
Sevost'yanov). 2. Ministerstvo proizvodstva i zagotovok sel'sko-  
khozyaystvennykh produktov (for Pasechnyy). 3. Respublikanskaya  
veterinarnaya laboratoriya Checheno-Ingushskoy ASSR (for Zabludskiy).

VOINOV, S., kand.veterinarnyykh nauk; KARPOVICH, M., veterinarnyy  
vrach SEVOST'YANOV, B.

Rendering the blood of cattle infected by foot-and-mouth  
disease harmless. Mias. ind. SSSR 31 no.4:52-53 '60.

(MIRA 14:7)

1. Gosudarstvennyy nauchno-kontrol'nyy institut vetpreparatov  
(for Voinov, Karpovich).
2. Vsesoyuznyy nauchno-issledovatel'  
skiy institut myasnoy promyshlennosti (for Sevost'yanov).  
(Foot-and-mouth disease)

SEVOST'YANOV, B.

Pituitary body extractor. Mias.ind.S.S.S.R. 33 no.6:44-45 '62.  
(MIRA 16:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut myasnoy  
promyshlennosti.

(Meat industry—Equipment and supplies)

*Subject: Synth. D. A. 1702*

✓ The distribution of radioactive methionine-sulfur-35 in proteins of organs and tissues of cattle and rabbits. N. G. Belen'kii, N. N. Krylova, I. L. Chertkov, L. D. Zueva, and B. A. Sevost'yanov (Chem. Technol. Inst. Meat Ind., Moscow). *Doklady Akad. Nauk SSSR*, 1956, 121, No. 4, 1611-1616. --In the solution of the problem of obtaining animal blood as a substitute for human blood it is important to evaluate the proteins of these preps. as to the time they would circulate in the vascular system and the degree of their assimilation. For this purpose methionine- $S^{35}$  was used. It was introduced into the protein *in vivo* by injecting it into the vein of the animal donor whose blood was later used as raw material to obtain blood substitutes. A 150-kg. bull was injected intravenously with the methionine 3 times at 4-hr. intervals. After the last interval, the animal was kept for 24 hrs., bled to death, and the different organs and parts of the body were examd. for  $S^{35}$ . The dose injected was equal to 95,000 impulses/min./g. of wt. The rabbits received a total activity of 260,000 impulses/min./g. of wt. in 3 injections. After 23 hrs. they were bled to death and their tissues examd. The tissues were ground in a mortar at low temp. in cold water. The proteins were pptd. with 20%  $CCl_3CO_2H$ . The pptd. proteins were freed of lipides by extg. them with alc. or 20-24 hrs. and washing with alc. and ether and finally with ether only. When dry, the proteins were ground and radioactivity was detd. About 10% of the injected activity could be recovered after 24 hrs. The highest specific radioactivity was found in the kidneys, liver, small intestine, pancreas; the smallest in muscles, skin, and erythrocytes. The highest abs. quantities of radioactive methionine accumulated in the proteins of muscles, blood, and liver. The central nervous system had a rather small amt. of the methionine- $S^{35}$ . I. L. Joffe



USSR/Human and Animal Physiology. Metabolism. Nutrition.

Abs Jour: Ref Zhur-Biol., No 12, 1958, 55322.

Author : Belen'kiy, N.G., Krylova, N.N., Chertkov, I.L., Bazarova, K.I.,  
Zuyeva, L.D., Sevost'yanov, B.A., Kel'man, L.F.

Inst : All-Union Academy of Agricultural Sciences.

Title : The Influence of Thermal Treatment on the Assimilation of Meat Protein.

Orig Pub: Dokl. VASKhNIL, 1957, No 4, 23-29.

Abstract: During a period of 6 days, 26 rats of 180-200 gr body weight each, received daily 10 gr of beef meat with methionine-S<sup>35</sup> proteins. Seven control rats were given raw ground meat. Nine rats were fed ground meat which has been heated in an ultrathermostate at 80° [C] for one hour, and 10 rats received ground meat heated in an autoclave at 120° [C]. Two days after the last (6th) feeding, all rats were killed. The proteins were extracted from their plasmas and livers, and their radioactivity was determined. And the assimilation of proteins in their natural state as compared to those denaturized by

Card : 1/2

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USSR/Human and Animal Physiology. Metabolism. Nutrition.

Abs Jour: Ref Zhur-Biol., No 12, 1958, 55322.

by heat did not show any differences. Thereafter, this investigation was continued on dogs (numbering 8), whereby the nitrogen balance was studied as well. Here, it was established that natural proteins are assimilated somewhat better than denaturized proteins. Also, it was established that the degree of denaturalization does not exert any specific influence upon protein assimilation.

Card : 2/2

SEVOST'YANOV, B. А

Method of extracting pituitary bodies of swine. Mias. ind. SSSR.  
30 no.4:35 '59. (MIRA 12:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut myasnoy promyshlen-  
nosti.  
(Swine houses and equipment) (Pituitary body)

BELEN'KIY, N.G., akademik; KRYLOVA, N.N., kand. biologicheskikh nauk;  
BAZAROVA, K.I., mladshiy nauchnyy sotrudnik; SEVOST'YANOV, B.A.,  
mladshiy nauchnyy sotrudnik; KUZNEKO, Ye.V., inzh.

Method for the preparation of "MP" hydrolyzates from blood  
proteins and their properties. Trudy VNIMMP no.13:120-144 '62.

(MIRA 17:5)

1. Eksp. thekh Moskovskogo myasnogo kombinata (for Kuzenko).

SEVOST'YANOV, B.A., mladshiy nauchnyy sotrudnik

Biological evaluation of the characteristics of heteroprotein  
blood substitutes with highly denatured proteins. Trudy  
VNIIMP no.13:145-149 '62. (MIRA 17:5)

SEVOST'YANOV, D. D.

Konstruktsiia i remont vychislitel'nykh mashin. [Design and repair of computing machines]. Gosstatizdat, 1952. 188 p.

SO: Monthly List of Russian Accessions Vol. 6 No. 7 October 1953

5 (4)

AUTHORS:

Gorbanev, A. I., Kessler, Yu. M.,  
Povarov, Yu. M., Sevost'yanov, E. S.

SOV/20-125-6-30/61

TITLE:

Some Regularities in the Properties of the Solutions of Strong  
Electrolytes (Nekotoryye zakonomernosti svoystv rastvorov  
sil'nykh elektrolitov)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 6,  
pp 1281-1284 (USSR)

ABSTRACT:

The authors state that it is possible to explain the  
deviation of the properties of electrolytes from the Debye-  
Hückel-law only by taking the specific ion interaction into  
account. On the basis of assumptions made in an earlier  
paper (Ref 4) the contribution  $f_c$  of ion interaction is given

as amounting to  $\ln f_c = \frac{4}{3} \pi a^3 B c - B \beta_1 c$  (1). [ $a = r_+ + r_-$ ,  
the sum of the crystallographic radii of the cation and anion,  
 $B = 6.024 \cdot 10^{20}$ ,  $\beta_1$  = coefficient taking the solvation energy  
of the ion pair into account (Formula 2),  $c$  = concentration].  
The deviation  $\lg f_{\text{exp}} = \lg f_D - \lg f_c$  ( $f_{\text{exp}}$  = experimentally

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Some Regularities in the Properties of the  
Solutions of Strong Electrolytes

SOV/20-125-6-30/61

determined behavior,  $F_D$  = theoretical behavior according to Debye-Hückel) was investigated at  $25^\circ$  and  $c = 0.01$  in aqueous electrolyte solutions. The following increase of the deviation was found:  $\text{LiCl} < \text{KClO}_4 < \text{NaF}, \text{NaNO}_3, \text{NaClO}_4, \text{RbCl}, \text{CsCl}, \text{CsBr} < \text{KCl} < \text{KBr} < \text{LiNO}_3, \text{NaCl} < \text{KJ} < \text{LiBr} < \text{NaJ} < \text{NaBr} < \text{LiClO}_4 < \text{KF} < \text{CsF}$ . It follows herefrom that there is no agreement between the deviation and the solvation ability of the ions. As the energy of electrostatic interaction and quantum-mechanical energy compensate each other, with an increase of the ion radius, the lack of agreement must be due to individual differences between the ion pairs, which manifest themselves in their solvation energy. Therefore, the values for  $B\beta_1 c$  were calculated and the curve of the function  $B\beta_1 c = f(a)$  for  $0^\circ$  and  $25^\circ$  was plotted (Figs 1, 2). An existing connection now becomes noticeable. The considerable straggling of measured values may be explained by the omission of all other interaction factors. Investigation of the dependence between

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Some Regularities in the Properties of the  
Solutions of Strong Electrolytes

SOV/20-125-6-30/61

$B\beta_1c$  and  $b$  (dipole effect) as well as  $g$  (charge interaction) resulted in no connection in the case of water. On the basis of data (Ref 7) for formamide the values of  $B\beta_1c$  in a formamide solution were calculated and represented as  $f(a)$  and  $f(b)$  (Fig 3). The authors, however, emphasize that this connection, which now becomes apparent, may be due to a misapprehension. It happens that the salts for which data in formamide are available, show a continuous connection between  $a$ ,  $b$  and  $g$  (Fig 4). Thus, the real argument of the function  $B\beta_1c$  can therefore only be one of the variables  $a$ ,  $b$ ,  $g$ . In order to clear this up, it is necessary to determine the values for salts which do not fit in to the curve of figure 4. There is no connection between  $a$ ,  $b$  and  $g$  and the deviation from the law of dilution heat. The dilution heat is influenced in the same manner by the various effects of ion interaction. In this case the entropy terms of the equation must not be omitted. There are 4 figures and 7 references, 4 of which are Soviet.

Card 3/4

Some Regularities in the Properties of the  
Solutions of Strong Electrolytes

SOV/20-125-6-30/61

ASSOCIATION: Institut elektrokhimii Akademii nauk SSSR (Institute for  
Electrochemistry of the Academy of Sciences, USSR)

PRESENTED: January 14, 1959, by A. N. Frumkin, Academician

SUBMITTED: December 26, 1958

Card 4/4

GEVOGTYANOV, E. S. and LEYKIS, K. I. (Institute of electrochemistry of Academy of Sciences of USSR)

"Investigation of adsorption of hexyl alcohol on a group of metals"

Report presented at the Intervuz Conference on Electrodeposition of Nonferrous Metals, Ural Polytechnical Institute im S. M. Kirov, Sverdlovsk, held from 27-30 May 1963.

(Reported in Tsvetnyye Metally, No. 10, 1963, pp. 82-84)  
JPRS 24,651. 19 May 1964

SEVOST'YANOV, F. G.

USSR/Cultivated Plants - Commercial. Oil-Bearing. Sugar-Bearing. M

Abs Jour : Ref Zhur Biol., No 18, 1958, 82416

Author : Sevost'yanov, F.G., Kurbanov, S., Purliyev, A.

Inst : Turkmen Agricultural Institute

Title : On the Organization and Application of Irrigation under the Conditions of Square-Pocket Planting of Cotton.

Orig Pub : Tr. Turkm. s.-kh. in-ta, 1957, 9, 35-42

Abstract : Observations on the organization of irrigation for cotton in 1956 on one of the plots at the "Bol'shvik" kol-khoz in Tedzhenskiy Rayon (Turkmen SSR) are described. The soil of the plot represents typical sierozem of medium water permeability. Planting was carried out by the row method with the spaces between rows of 45 centimeters, and after the appearance of the sprouts, the plants were distributed on 45 x 45 centimeters squares by means

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L 16059-66 EWP(m)/EWT(1)/FCS(k)/EWA(d)/EWA(1)  
ACC NR: AP6004071

SOURCE CODE: UR/0040/65/029/005/0863/0869

AUTHOR: Sevost'yanov, G. D. (Saratov)

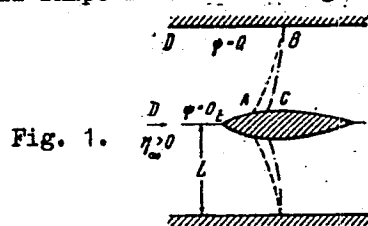
ORG: none

TITLE: Planar near-sonic flow of a gas at a distance from a shape located in a channel

SOURCE: Prikladnaya matematika i mekhanika, v. 29, no. 5, 1965, 863-869

TOPIC TAGS: aerodynamics, subsonic flow, gas dynamics, wind tunnel, airfoil

ABSTRACT: Peculiarities of planar near-sonic gas flow around a symmetrical shape are investigated. The airfoil shape is shown in Fig. 1.



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L 16059-66

ACC NR: AP6004071

The foil is situated in a channel between parallel walls separated by a distance  $2L$  and is beneath the zero angle of attack. Sonic line AB is created between the airfoil and the channel walls by the flow of gas at near-sonic velocity around the foil. The stream function  $\psi(\theta, \eta)$  satisfies the Triкоми equation

$$\eta\psi_{\theta\theta} + \psi_{\eta\eta} = 0,$$

where  $\theta$  is the slope angle of the velocity vector with the axis of the channel, and  $\eta$  is a known function of the velocity modulus. Initial and boundary conditions are stated, and a solution is found for  $\psi(\theta, \eta)$ . The solution is obtained through the use of singular equations in closed form according to S. Gellerstedt (Quelques problèmes mixtes pour l'équation  $y^m Z_{xx} + Z_{yy} = 0$ . Arkiv mat., astron. och fys. A, 1937, vol. 26, No. 3). It is shown that, as the channel becomes larger, the system behaves as a planar unbounded sonic streamflow (see F. I. Frankl. Ob odnom klasse resheniy gazodinamicheskikh uravneniy S. A. Chaplygina. Uch. zap. MGU, Mekhanika, 1951, t 154, No. 4; see also K. G. Guderley. The Flat Plate with an Angle of Attack in a Choked Wind Tunnel. J. Aeronaut. Sci., 1955, vol. 22, No. 12.) The author thanks S. V. Fal'kovich for proposing the problem and for his valuable comments. Orig. art. has: 3 figures and 29 equations.

SUB CODE: 20, 01/ SUBM DATE: 17May65/ ORIG REF: 005/ OTH REF: 007

Card 2/2

ACC NR: AR6024030

SOURCE CODE: UR/0044/66/000/004/B049/B049

AUTHOR: Sevost'yanov, G. D.

TITLE: The Tricomi boundary problem for a half-fringe and a quarter of a plane

SOURCE: Ref zh. Matematika, Abs. 4B235

REF SOURCE: Volzhsk. matem. sb., 1965, vyp. 3, 312-320

TOPIC TAGS: mixed boundary value problem, differential equation solution

ABSTRACT: For the Tricomi equation

$$y^2 z_{xx} + z_{yy} = 0 \quad (T)$$

the author solves two problems. Problem 1. Let the continuous and bounded function  $z(x, y)$  which satisfies (T) have the limiting values at the ends of the half-fringe  $0 \leq x \leq 1$ ,  $0 \leq y < \infty$ , and on the characteristic:

$$z(0, y) = p_1(y) = q_1(s), \quad 0 < y < \infty, \quad s = \frac{2}{3} y^{\frac{3}{2}},$$

$$z(1, y) = p_2(y) = q_2(s), \quad 0 < y < \infty,$$

$z = p_3(x)$  on the characteristic:

$$s = \frac{2}{3} (-y)^{\frac{3}{2}}, \quad 0 < x < \frac{1}{2},$$

$$\frac{\partial}{\partial y} z(x, 0) = 0 \left[ \left(1 - x - \frac{1}{3}\right), x \rightarrow 1, \right]$$

where  $p_1(y)$ ,  $p_2(y)$  and  $p_3(y)$  are given bounded functions. The solution is established

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UDC: 517.944

ACC NR: AR6024030

in closed form. It is sought in the form

$$z(x, y) = z_1(x, y) + z_2(x, y).$$

Both functions  $z_1$  and  $z_2$  are known. Function  $z_2(x, y)$  is represented in the form of a series

$$z_2(x, y) = \sum_{n=1}^{\infty} a_n Ai[(\pi n)^{2/3} y] \sin \pi n x,$$

where

$$a_n = \frac{2}{(\pi n)^{1/3} Ai'(0)} \int_0^1 v(t) \sin \pi n t dt,$$

and  $Ai(x)$  is the Airy function. The function  $v(x)$  is found approximately in the form of the series

$$v(x) \approx x^{1/3} \sum_{n=0}^{\infty} d_n \cos \frac{\pi x}{2}.$$

A linear system of equations is obtained for the determination of the coefficients  $d_n$ . Problem 2. Let the function  $z(x, y)$  satisfy the equation (T) in a mixed region, the elliptic part of which is in the first quadrant of the plane  $x, y$  ( $x \geq 0, y \geq 0$ ), while the hyperbolic part is an infinitely large characteristic triangle bounded by two characteristics of differing families one of which has the equation  $x = 2/3(-y)^{3/2}$ ,  $0 \leq x < \infty$ , while the other is the characteristic of a second family, having the equation

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ACC NR: AR6024030

$2/3(-y)^{3/2} = d - x$ ,  $y \leq 0$ ,  $d \rightarrow +\infty$  shifted into infinity. This problem is likewise solved in a finite form. [Translation of abstract] L. Vostrova

SUB CODE: 12

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L 14900-66 EWT(d)/EWT(1)/EWP(m)/EWA(d)/FCS(k)/EWA(1) IJP(c) GS

ACC NR: AT6001787

SOURCE CODE: UR/0000/64/000/000/0113/0129

AUTHOR: Sevost'yanov, G. D.

ORG: Saratov State University (Saratovskiy gosudarstvennyy universitet)

TITLE: Plane near-sonic gas flow leading to the Tricomi boundary problem in the half-plane

SOURCE: Transzvukovyye techeniya gaza (Transonic gas flows); sbornik statey. Saratov, Izd-vo Saratovskogo univ., 1964, 113-129

TOPIC TAGS: transonic flow, gas flow, ~~Tricomi problem~~, hodograph, integral equation, *boundary value problem, successive approximation*

ABSTRACT: The sonic flow of a gas through a two-dimensional straight-walled channel ADD'A' (see Fig. 1) is investigated using the Tricomi boundary value problem. In the channel, section AA' corresponds to the sonic line and, because of symmetric flow conditions, the analysis is restricted to the half-region DB. Transformed into the hodograph plane (see Fig. 2), the governing equation becomes

$$yz_{xx} + z_{yy} = 0 \quad (1)$$

with the boundary conditions  $z(0, y) = P_1(y) = q_1(s), y \geq 0, s = \frac{2}{3}y^{\frac{3}{2}}$

$$\begin{aligned} z(1, y) &= P_2(y) = q_2(s), y \geq 0 \quad (2) \\ z &= P_3(x) \text{ na } AC: x = \frac{2}{3}(-y)^{\frac{3}{2}}, 0 \leq x \leq \frac{1}{2}, y \leq 0 \end{aligned}$$

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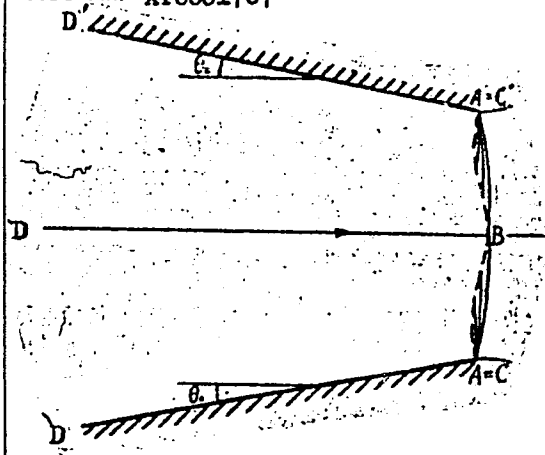
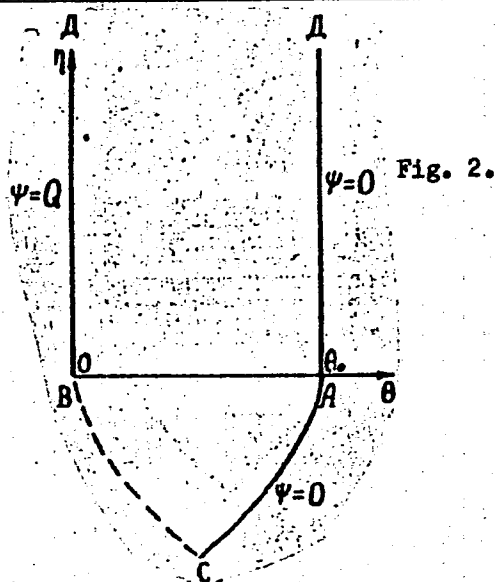


Fig. 1.



It is then shown that the equivalent Tricomi problem can be given by a singular integral equation

$$\varphi(x) + \frac{1}{\pi\gamma_2} \int_0^1 L(x,t) \varphi(t) dt = f(x), \quad 0 < x < 1, \quad (3)$$

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where  $L(x, t)$  is given by

$$L(x, t) = \frac{1}{t-x} + \frac{1}{t+x} + \sum_{n=1}^{\infty} \left( \frac{t}{2n+t} \right)^{1/2} \left( \frac{1}{2n+t+x} + \frac{1}{2n+t-x} \right) \quad (4)$$

$$- \sum_{n=1}^{\infty} \left( \frac{t}{2n-t} \right)^{1/2} \left( \frac{1}{2n-t+x} + \frac{1}{2n-t-x} \right)$$

This singular integral has an open contour with the cut  $0 \leq x < 1$ . To solve this integral equation, the following complex function is introduced which is analytic for all  $z$

$$\Phi(z) = \frac{1}{2\pi i} \int_0^1 L(z, t) \varphi(t) dt \quad (5)$$

It leads to the expression for  $\Phi(x)$  given by

$$\varphi(x) = N[r(x)] = \frac{3}{4} [r(x) - \frac{1}{\pi\sqrt{3}} \int_0^1 \left( \frac{\lg \frac{\pi}{2} x}{\lg \frac{\pi}{2} t} \right)^{1/2} L_0(x, t) r(t) dt] \quad (6)$$

which is then incorporated into an operator form given by

$$M[\varphi(x)] = P[\varphi(x)],$$

$$P[\varphi(x)] = f(x) - \frac{1}{\pi\sqrt{3}} \int_0^1 \Delta L(x, t) \varphi(t) dt \quad (7)$$

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ACC NR: AT6001787

where M and N are the inverse of each other. It is then shown that the above equations can be solved by successive approximations which converge to the solution of the equation given by (3). In conclusion the author expresses his deep appreciation to Saveliya Vladimirovich Fal'kovich for preparing the problem and for the help. Orig. art. has: 53 equations and 3 figures.

SUB CODE: 20/ SUBM DATE: 21Jul64/ ORIG REF: 012/ OTH REF: 004

60  
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L 29864-66 EWT(1)/ENP(m) WW

ACC NR: AP6013197

SOURCE CODE: UR/0421/66/000/002/0053/0059

AUTHOR: Sevost'yanov, G. D. (Saratov)

ORG: none

TITLE: Flow of a sonic free gas jet around a shape

SOURCE: AN SSSR. Izvestiya. Mekhanika zhidkosti i gaza, no. 2, 1966, 53-59

TOPIC TAGS: gas jet, gas flow

ABSTRACT: The article is devoted to the construction of a function for flow at a distance from a shape, around which is flowing a flat free sonic gas jet. Let a thin symmetrical shape be placed along the axis of a flat free sonic jet. (See Figure 1).

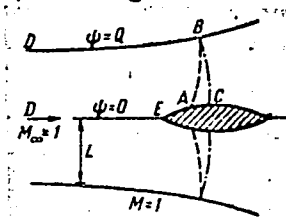


Figure 1

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ACC NR: AP6013197

Since the velocities in the jet at a distance from the shape do not differ by much from the velocity of sound, the flow function  $\psi(\theta, \eta)$  approximately obeys the Tricomi equation:

$$\eta\psi_{\eta\eta} + \psi_{\eta\eta} = 0 \quad (1.1)$$

After mathematical solution of the above problem, the article goes on to consider the flow around a shape of a sonic jet issuing from a channel. "The author thanks S. V. Fal'kovich for his valuable observations on the article." Orig. art. has: 29 formulas and 4 figures.

SUB CODE: 20/ SUBM DATE: 23Nov65/ ORIG REF: 005/ OTH REF: 006

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*Biblio*

SEVOST'YANOV, Grigoriy Nikolayevich for Doc Hist Sci on the basis of dissertation defended 7 Oct 59 in Council of Mos Order of Lenin and Order of Labor Red Banner State Univ im Lomonosov, entitled "<sup>*Policy of the*</sup> ~~Politics of~~ imperialist powers in the Far East (July 1937 - December 1941)."  
(BMVISO USSR, 1-61, 29)  
(Bulletin of the Ministry of Higher and Specialized Secondary Education USSR)

-31\*-



SEVOST'YANOV, I. (g.Dmitrov Moskovskoy oblasti)

Students' creativeness. Politekh.obuch. no.1:92 Ja '59.  
(MIRA 12:2)

(Dmitrov--Technical education)

SEVOST'YANOV, I.I.

Homemade visual aids on biology. Biol. v shkole no. 1:90 Ja-F '61.  
(MIRA 14:4)

1. Zaveduyushchiy Dmitrovskim raypedkabinetom Moskovskoy oblasti.  
(Biology--Audio-visual aids)

SEVOST'YANOV, I. P.

Methods used in installation work. Mast. ugl. 5 no. 5:21-22 My '56.  
(MLRA 9:8)

(Kuznetsk Basin--Mine timbering)

Sevost'yanov, I. M.

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SOV/127-59-A-12/27

AUTHORS: Denisov, N. K., Zaretsky, L. I., Kapelyushnikov, L. Ye., Redekap, A. V., Sevost'yanov, I. M. and Tereshchenko, N. A.

TITLE: A Portal Timber Stacker. (Portal'nyy kropeukladchik)

PERIODICAL: Gornyy zhurnal, 1959, Nr 4, p 56 (USSR)

ABSTRACT: This is a description of a portal timber stacker - author's certificate Nr 109261, class 5a, 10<sub>ol</sub>. There are 3 diagrams.

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